

Socio-Economic Background of Fishing Community in Odisha: An Empirical Analysis

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Abstract:

The primary objective of this paper is to assess the dynamics of socio-economic factors influencing the individual economic well-being within the fishing community. Specifically, the study focuses on comprehending the socio-economic landscape of the fishing community residing in the coastal region of Keradagarh village in the Rajanagar area, situated in the Kendrapara district of Odisha, India. This investigation delves into key aspects of socioeconomic status, encompassing variables such as age, gender, marital status, income, educational attainment, land ownership, and the overall condition of household assets. The methodology employed involves a comprehensive data collection process from both primary and secondary sources. Primary data is gathered directly from the study area, while secondary data is curated from diverse sources, including articles, journals, and reputable websites. Through this meticulous exploration, the study aims to provide a comprehensive understanding of the intricate socio-economic fabric that defines the livelihoods of the fishing community in this specific geographical area.

Keywords-fishermen, socioeconomic status, income, education.

Introduction

Fish and Fisheries is an important sector in many developing and developed countries worldwide, contributing significantly to income and employment generation. In India, the role of fisheries in the economy is gaining momentum due to the introduction of advanced techniques aimed at increasing yield per unit area of water and its contribution to earning foreign exchange (Basavakumar et al., 2011). In 2008, fishing in India contributed over 1% to the annual gross domestic production. India possesses one of the largest freshwater and marine water resources, ranking second and seventh globally. With more than 1.6 million hectares of freshwater resources, only 0.6 million hectares are currently utilized for freshwater culture (Jhingran 1997). The fishing industry in India employs approximately 14.5 million people. To harness the economic benefits of fishing, India has established an exclusive economic zone extending 200 nautical miles (370 km) into the Indian Ocean, covering over 2 million square kilometers (Umesha K M 2023).

Fishing communities play a crucial role in sustaining the fishing industry and local economies. They contribute to food security by supplying fish for consumption and trade, while also preserving cultural traditions and heritage associated with fishing. Fishing communities often rely on sustainable practices, promoting environmental awareness and conservation efforts. Fishermen constitute a vital group of individuals who often reside away from the urban hustle and bustle. They catch and sell fish in the market, participate in water cleaning activities, and contribute to environmental protection by managing fish populations. Fishermen play an essential role in society, with their fishing methods evolving,

utilizing tools such as hooks, lines, and spears for survival. Most fishermen are engaged in offshore and deep-sea fisheries, while both men and women fish in some regions inshore from small boats or engage in collecting shellfish and seaweed.

Odisha is a state of India filled with rich natural resources, located on the east coast of India. Odisha lies between the 17.32 and 22.32 N latitude and 81.31 and 87.31 E longitude. It covers 155,707 km², which is 4.87% of the total area of India, out of which 152,912 (98%) square km area is occupied by rural area and the rest belongs to urban area. Odisha has (30/mi)485 kilometers of coastline along with the Bay of Bengal in the east. Kendrapara District passes through many rivers like - Brahmani, Subarnarekha, Baitarani, Mahanadi, and Rushikulya. It is surrounded by states like West Bengal in the northeast, Jharkhand in the north, Chhattisgarh in the west and northwest, and Andhra Pradesh in the south and southeast. Its coastline is 480 km long. The state is divided into 30 districts which are further sub-divided into 314 blocks. In 2011, the sex ratio was 972 females per 1000 males in Odisha. Bhubaneswar, the capital of Odisha is the largest and cleanest city. Odisha is one of the major maritime states, offering vast scope for the development of inland, brackish water, and marine fisheries. The state's 480 km long coastline with 24,000 sq km area within the continental shelf has ample potential for marine fisheries development. By judiciously harnessing these resources, the fish production culture based on capture fisheries could be substantially augmented to meet the domestic market demands and increase export, apart from creating employment and income-generating opportunities for the rural poor and their food, nutritional, and livelihood security (Government Of Odisha <https://odisha.gov.in>). The fishery sector in Odisha faced various problems - low levels of literacy and relatively high levels of debt. The total fish production of the state in 2020 - 2021 was 4,13,000 tonnes. Kendrapara District is situated in a central coastal plain zone of Odisha. Kendrapara district is surrounded by Bhadrak District at its North, Jajpur at its Northwest, Jagatsinghpur District at its south, Cuttack District at its west, and Bay of Bengal at its east. (<https://kendrapara.nic.in>) (2.3.2020). Kendrapara district is known as Tulasikheshtira. History reveals the fact that Lord Balram killed Kandrashura here. Then he married his daughter Tulasi and settled here. Then the place is known as Kendrapara. It lies between 20.20 to 20.47 North latitude and 86.14 to 87.3 East longitude on the coast of India. The census of 2011 total population is 14,40,361, 7,17,814 males and 7,22,547 females. The river (Chitroptala, a branch of the Mahandi) flows through Kendrapara district. Other rivers in Kendrapara include the Luna, the Baitarani, the Brahmani, the Gobari, the Paika, and the Sarasota. The Kendrapara district is divided into 9 blocks, which are Aul, Kendrapara, Garadapur, Mahakalapada, Marshaghai, Rajnagar, Rajkanika, and Pattamundai. Keradagarh is a small village in Rajnagar block in Kendrapara District of Odisha state, India. It is located 49 km towards the east from district headquarters Kendrapara and 125 km from Bhubaneswar. Keradagarh is surrounded by Rajkanika block in the north, Aul block in the west, Chandabali block in the north, Pattamundai block towards the west. Pattamundai, Kendrapara, Jajpur, Paradeep, are near Keradagarh. It is near to Bay of Bengal. The total population of Keradagarh village is 3371, out of which 1711 are males while 1660 are females, as per population census 2011. 1071 people of Scheduled Caste live in this village. The majority of the Kaibarta family live in this village. Their traditional occupation is fishing. They can not change their traditional occupation.

Review of literature

Considerable literature has been collected from various sources. Mainly through secondary sources like published articles, journals, and newspapers.

Kulkarni, et al (2018) in their work on “studies on socio-economic conditions of fishermen in Udgir in Maharashtra state”. The present study has been carried out on the socio-economic conditions of fishermen and related to livelihood. This study has been carried out from February 2009 to January 2010 in Udgir Tahsil. The researcher pointed out that the socio-economic status of fishermen mainly their family size, education status, literacy, income, etc. Their condition has been observed to be poor in earnings and they can not afford the basic needs of life. Even if they do not have their land. Some even lack facilities like- electricity, drinking water, and other financial assistance at a subsidized rate would be given for the construction of fish ponds. Moreover, need-based training policies for saving and health insurance are some of the means that can improve the conditions of fishermen. Most of the fishermen suffer from economic crises mainly during scarcity of rainfall. In addition to this, they do not have alternate income sources. Most of them have kutcha houses with poor sanitation facilities. They also face problems of unavailability of fish seed for their socio-economic improvement. It is required to increase their earnings by providing technical knowledge. It is required to create areas and allocate the water bodies on marginal pay and use based on the fisher flock community.

Hap et, al. (2006) Their article on “Socioeconomic and livelihood values of Tonle Sap Lake Fisheries”. This observation describes the socio-economic condition of the fishing community of Tonle Sap Lake, this article is based on the fisheries and these communities, fishing is an important activity for the majority of households in the Tonle Sap Lake. Majority of fishermen are engaged in fishing. Social Income of this area is based on fishing, fish processing, fish marketing, and fish culture regarding their primary occupation. The annual income of this area belongs to direct consumptive uses for all fisheries-dependent households. The low-income households are mainly small-scale, substitute fishers, with high livelihoods depending on the Tonle Sap Lake, between them there are many seasonal fishermen, whose lifestyles are not good. They are unable to satisfy their primary needs. This research is based on improving estimate values of Tonle Sap Lake fishers and aquatic ecosystems by incorporating other non-use values. So they need to understand market access and marketing system, nature, and source of credit not income for small-scale fisheries. Their requirement was fulfilled by govt. if govt take steps or action for them.

Ramesh and Deshmukh (2017) in their article on “socio-economic status of fishermen community of Paithan area”. The present study was carried out to survey the economic condition of the fishermen community in a selected area of Nath Sagar dam on the river Godavari Paithan district-Aurangabad (m.s) India in the year 2016-2017. The fishermen of this area along with their family are engaged in part-time as well as full-time fishing. Fishes are highly rich in protein and one of the staple food in India and 70% of the population still depends on the fishery for their livelihood. Fishery surveys as excellent sources of income and employment because it accelerates the growth of various industries including foreign exchange. Fishing activities completely depend on the marketing system. A very large number of fish are collected from the Godavari and Nath Sagar dams by wholesale fishermen and selling them in the wholesale market.

Datta & Kundu (2017) in their study on “socio-economic appraisal of culture based fishermen; a case study in West Bengal.” This article deals with the life of fishermen in Burdwan district in West Bengal, which says that the standard of fishermen in terms of access to basic amenities of life is very poor. Fishermen constitute the primary stakeholder community on whose capacity and dispossession to toil and labor depends on the poverty of the fishing

industry. Their effort in providing nighttimelabor, a source of traditional knowledge of how, and a sense of the quality of pond water and soil are important for sustainability. Living standard differential access to income capacity can create distance among fishermen. someasures like-health insurance, better training, and credit facilities, prevent the fishing occupation.

Research Methodology

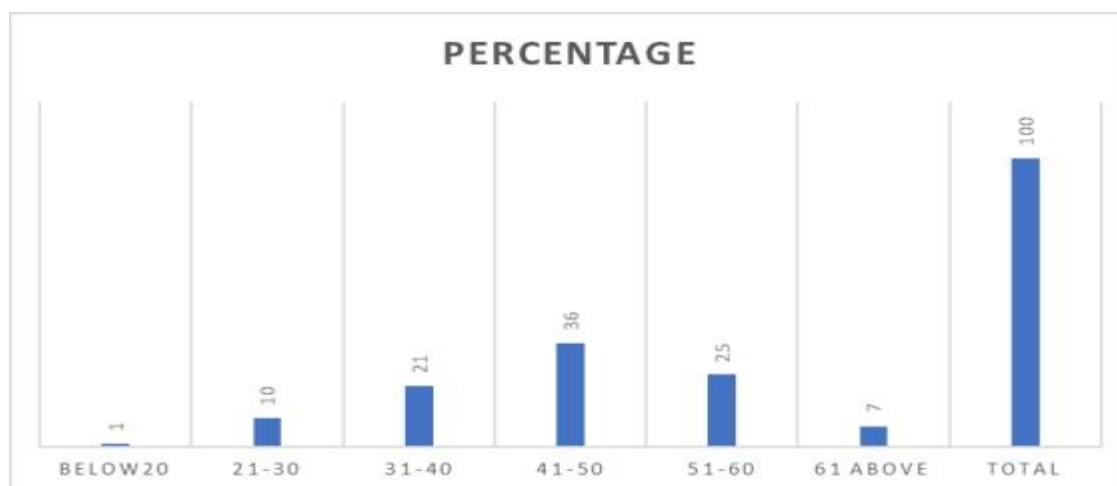
In the present study,the samples have been collected by using multistage sampling. In the first stage, Kendrapara district is purposively selected.Because Kendrapara is one of the coastal districts of Odisha and it is situated near the Bay of Bengal. The majority of fishermen belong to Kendrapara district and their source of income is mainly fishing and farming. In Kendrapara district, there are nine administrative blocks, 230 Gram Panchayat, and 1547 villages. In the second stage, Rajnagar block (comprising 29 Gram Panchayat and 309 villages,) has been selected out of 9 blocks. Because this block passes through many rivers and a sea.In this block, people depend on fishing and farming for their income, as fishing and farming are their traditional occupations.In the third stage, Keradagrh Gram Panchayat has been selected out of 29 Gram Panchayats. Then Keradagarh village has been selected. In this village, there are 605 households and the total population of the village is 3371. Out of the total population, 1071 people belong to the Scheduled Caste community. Because a large number of Kaibarta cast fishermen live in this village they are economically backward and educationally weaker. In the last stage, 100 samples and 50 households were selected randomly from one village.

Results and Discussion

Age and gender

Age refers to a life span between birth and death covered by persons. Aging is an important part of all human beings. Society reflects the biological changes that occur and its impact reflects cultural and societal being conventions. Age is also one of the main criteria for understanding an individual status in society. Gender also exists as socially constructed roles,behaviors, and attributes that a society considers appropriate for men and women.In the present study, most of the fishermen are male.

Table no. 1.1- Distribution of Age of the Respondents



(Source of Primary survey)

The table no. 1.1 reveals that the distribution of Gender in terms of age of the respondents. From the above table it has been found that 1 percent of the respondent belongs to the age category of below 20 & 10 percent of the respondents from the male category belongs to the age group 21-30, then 21 percent of the respondents from male category belongs to age group 31-40. similarly, 36 percent of the male respondents belong to the age group 41-50. 25 percent of the respondents belong to age group 51-60 and rest 7 percent of the respondents from male category are above 61 years. The present study reveals that all the respondents are male category. Majority 36% respondent belong to the age group of 41-50.

Social category

Caste is a system of hierarchical social class or specific social class of people. Caste rigid social group characterized by hereditary transmission of life style, occupation and social status. The caste system in India has originated in ancient period and was transformed by various ruling elites in medieval, early modern India especially in the Mughal empire and British Raj. The caste system is divided into 4 main types - Brahmin, Kshatriya, vaishyas and Sudra. The fishermen belong to sudra caste in this study are. The particular Sub-caste of the most of fishermen is (Kaibarta).

Marital status

Marital status is also an important variable for respondents. Prabhu P.H says that the primary objective of the marriage is family life, a bond between the wife and the husband into an indissoluble bond which lasts till death.

Table no -1.2
Marital status of the respondents

Gender	Marital status		total
	Unmarried	Married	
Male	7 7.0%	93 93.0%	100 100.0%
Total	7 7.0%	93 93.0%	100 100.0%

(Source of primary survey)

Table no 1.2 shows the relation between gender and marital status of the respondents. From the above table, it has been found that there is 7% male persons of the respondents belong to the unmarried category out of 100 respondents whereas 93% percent of the respondents belong to the married category. The present study reveals that the majority of married respondents are engaged in fishing I.e.93%.

Educational Qualification

The educational qualification of the respondents is an important variable because education brings a positive attitude towards the respondent's socio-economic background in society. The shared values of society and simultaneously teaching the specialized skills for the economy are based on a specialized division of labor.

Table no-1.3
Educational qualification of the Respondent

Gender	Education qualification of respondents					Total
	Illiterate	Primary	High school	Higher Secondary	Graduate	
Male	17 17.0%	61 61.0%	18 18.0%	3 3.0%	1 1.0%	100 100.0%
Total	17 17.0%	61 61.0%	18 18.0%	3 3.0%	1 1.0%	100 100.0%

(Source of primary survey)

The table 1.3 demonstrates the gender and education of the respondents. From this table we can see that 17% of the males are illiterate, 61% have completed primary Education and 18% have gone to high school, only 3% have completed their higher secondary education and a negligible that is 1% are graduates. The majority of the respondents have completed primary education I.e.(61%).

Table no-1.4
Own income and fishing activity income of the respondent

Income of the respondent	Income of fishing activity				Total
	Less than 5000	5000-10000	10000-15000	15000-20000	
Less than 5000	18 72.0%	0 0.0%	0 0.0%	0 0.0%	18 18.0%
5000-10000	7 28.0%	70 100.0%	1 25.0%	1 100.0%	79 79.0%
10000-15000	0 0.0%	0 0.0%	3 75.0%	0 0.0%	3 3.0%
Total	25 100.0%	70 100.0%	4 100.0%	1 100.0%	100 100.0%

(Source of primary survey)

The table no 1.4 demonstrates the income and fishing activity of the respondent. This table displays that 18(72.0%) people income less than 5000 in both their own income and in fisheries.7(28.0%)of respondents income 5000-10000 from their own source and less than 5000 from fisheries,70(100%)of the people income 5000-1000 from both their own source and fisheries, 1(25.0%) of people income 5000-10000 from their own source and 10000-15000in fisheries,1(100%)of people income 5000-1000 from their own source and 15000-20000 by fishery . The 3(3.0%) of the

people income 10000-15000 from both their own source and fishery. The above information shows that the maximum respondent's income 5000-10000 by the fishery.

Table no -1.5**Condition of house and toilet facility of the respondents**

Toilet facility	Condition of house				total
	Kutch house	Semi pucca	pucca	Indira/pradhanmantriaawa syojna	total
yes	12 36.4%	4 33.3%	5 55.6%	12 26.1%	33 33.0%
no	21 63.6%	8 66.7%	4 44.4%	34 73.9%	67 67.0%
total	33 100.0%	12 100.0%	9 100.0%	46 100.0%	100 100.0%

(Source of primary survey)

Table no –1.5 reveals the condition of the house and toilet facilities. From this table, we can see that 12(36.4%) of the respondents living in kutch houses have toilet facilities, 4(33.3%) of respondents living in semi-pucca houses have toilet facilities, 5(55.6% of the respondents living in pucca house have toilet facility and 12% of the respondents living in indirapradhan was yojna have toilet facility. 21% of the respondents living in the kutch house do not have toilet facility, 8% of the respondents living in semi pucca house do not have toilet facility, 4% of the respondents living in the pucca house do not have toilet facility, 36% of the respondents living in Indira Pradhan Mantriaawasyojna do not have toilet facility. It is found that majority of respondents from this table do not have toilet facility (I.e.67%).

Table no 1.6**Land ownership of the respondents**

Land ownership	Types of farmers				total
	No farming	Wholly owned	Wholly leased holding	Partly owned and partly leased in holding	
yes	0 0.0%	2 28.6%	0 0.0%	5 71.4%	7 100.0%
no	87 93.5%	0 0.0%	6 6.5%	0 0.0%	93 100.0%
total	87 87.0%	2 2.0%	6 6.0%	5 5.0%	100 100.0%

This table shows that 2(28.6%) of the respondents who have land ownership are wholly owned farmers, 5(71.4%) of the respondents who have land ownership are partly owned and partly owned leased in holding farmer. 87% of the respondents neither have land ownership, nor they have farmers. 6% of the respondents do not have land ownership but wholly leased holding farmer. Out of 100% of respondents, 93% do not have land ownership. They only depend on fishing for their livelihood.

Conclusion

In conclusion, this study has aimed to delve into the intricate layers of the socio-economic status of fishermen in the Kendrapara district of Odisha, a region that plays a pivotal role in marine fisheries and contributes significantly to the national economy. As one of the major maritime states, Odisha provides ample opportunities for the development of inland, brackish water, and marine fisheries, with Kendrapara district positioned strategically in the central coastal plain zone. The rivers flowing through this district, including Baitarani, Salandi, Brahmani, Mohanadi, Kapili, and Dhani, sustain communities in areas such as Bhitarkanika, Gahirmatha, Rajnagar, and Raskanika, where fishing is the fundamental source of livelihood. Notably, the majority of respondents and their spouses have completed primary education, reflecting a baseline level of educational attainment. The prevalence of nuclear families is influenced by economic considerations, as annual earnings often fall short of expenditures. This dynamic underscores the prioritization of male offspring, perpetuated by societal norms and the perception that male children are more economically robust. The housing landscape reveals that a significant proportion resides in Kutcha houses and benefits from the Indira Pradhan Mantri Awas Yojana. Moreover, the scarcity of land resources prompts a high percentage of respondents to abstain from animal husbandry. The observed trend indicates a generational shift, with younger individuals displaying a decreased interest in fishing, while those in the middle age group actively engage in this occupation. Financial challenges persist, leading a considerable proportion of respondents to seek loans to bridge the gap between income and expenditure. This highlights the ongoing struggle of fishermen who grapple with insufficient funds, impacting their overall economic stability and sustainability. In essence, the findings shed light on the complex interplay of socio-economic factors shaping the lives of fishermen in Kendrapara district, underscoring the need for targeted interventions and supportive policies to enhance their well-being.

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